

What is claimed is:

[Claim 1] 1. A method of fabricating a stamper by half-tone technology, the method comprising:

providing a substrate, and coating a photo resist layer onto the substrate;
performing an exposing and developing process with a half-tone mask to remove a portion of the photo resist layer so as to form a plurality of photo resist patterns having different heights;
performing a flow process for forming a microlens surface on each photo resist pattern;
forming a metal layer overlying the substrate and the photo resist patterns so as to form a plurality of patterns complementary to the photo resist patterns on a bottom surface of the metal layer;
separating the metal layer from the substrate and the photo resist patterns;
and
planarizing a top surface of the metal layer, and combining the top surface of the metal layer with an insert mold.

[Claim 2] 2. The method of claim 1 wherein the plurality of patterns formed on the bottom surface of the metal layer are utilized for fabricating a light guide plate.

[Claim 3] 3. The method of claim 1 wherein the metal layer is formed by electroforming technology, and before the metal layer is formed the method further comprises forming a seed layer onto the substrate and the photo resist patterns.

[Claim 4] 4. The method of claim 3 wherein the metal layer is formed by single metal electroplating technology.

[Claim 5] 5. The method of claim 3 wherein the metal layer is formed by alloy electroplating technology.

[Claim 6] 6. The method of claim 3 wherein the seed layer is formed by evaporating, sputtering, or electroless plating technologies.

[Claim 7] 7. The method of claim 1 wherein the metal layer is formed by evaporating or sputtering technologies.